

<b>SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, &amp; 30</b>				1. REQUISITION NUMBER		PAGE 1 OF <div style="text-align: right;">18</div>	
2. CONTRACT NO.		3. AWARD/EFFECTIVE DATE		4. ORDER NUMBER		5. SOLICITATION NUMBER <div style="text-align: center;">N00173-98-R-HA04</div>	
7. FOR SOLICITATION INFORMATION CALL:		a. NAME <b>HILDA R. ABDON, CONTRACT SPECIALIST</b>				b. TELEPHONE NUMBER (No collect calls) <b>(202) 767-0682</b>	
9. ISSUED BY <b>CONTRACTING OFFICER NAVAL RESEARCH LABORATORY ATTN: CODE 3220.HA 4555 OVERLOOK AVENUE, SW WASHINGTON DC 20375-5326</b>				10. THIS ACQUISITION IS <input type="checkbox"/> UNRESTRICTED <input checked="" type="checkbox"/> SET ASIDE: 100 % FOR <input checked="" type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> SMALL DISAV. BUSINESS <input type="checkbox"/> 8(A)  SIC: SIZE STANDARD:		11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input checked="" type="checkbox"/> SEE SCHEDULE  <input checked="" type="checkbox"/> 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)  13b. RATING <div style="text-align: center;">DO-C9</div> 14. METHOD OF SOLICITATION <input type="checkbox"/> RFQ <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP	
15. DELIVER TO <b>National Synchrotron Light Source (NSLS) Attn: Dr. Shane Stadler Brookhaven National Laboratory, Upton, NY 11973</b>				16. ADMINISTERED BY			
17a. CONTRACTOR/OFFEROR CODE <input type="text"/> FACILITY CODE <input type="text"/>				18a. PAYMENT WILL BE MADE BY CODE <input type="text"/>			
TELEPHONE NO. <input type="text"/>				18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM			
<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER							
19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES			21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	ISSUE DATE: 17 JUL 1998 DUE DATE: 03 AUG 1998 @ 4:00 P.M. EST (SEE CONTINUATION OF BLOCKS 19-24) <i>(Attach Additional Sheets as Necessary)</i>						
25. ACCOUNTING AND APPROPRIATION DATA (TO BE FILLED IN AT CONTRACT AWARD)						26. TOTAL AWARD AMOUNT (For Govt. Use Only)	
<input checked="" type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, FAR 52.212-4, FAR 52.212-3 AND 52.212-5 ARE ATTACHED.						<input checked="" type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED	
<input type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4, FAR 52.212-5 IS ATTACHED. ADDENDA						<input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED	
28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN <input type="checkbox"/> TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.				29. AWARD OF CONTRACT: REFERENCE <input type="text"/> OFFER <input type="checkbox"/> DATED <input type="text"/> YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH			
30a. SIGNATURE OF OFFEROR/CONTRACTOR				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)			
30b. NAME AND TITLE OF SIGNER		30c. DATE SIGNED		31b. NAME OF CONTRACTING OFFICER		31c. DATE SIGNED	
32a. QUANTITY IN COLUMN 21 HAS BEEN  <input type="checkbox"/> RECEIVED <input type="checkbox"/> INSPECTED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED				33. SHIP NUMBER <div style="display: flex; justify-content: space-around;"><span><input type="checkbox"/> PARTIAL</span><span><input type="checkbox"/> FINAL</span></div>		34. VOUCHER NUMBER	
32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE				32c. DATE		35. AMOUNT VERIFIED CORRECT FOR	
32d. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE				32e. DATE		36. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	
32f. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE				32g. DATE		37. CHECK NUMBER	
32h. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE				32i. DATE		38. S/R ACCOUNT NUMBER	
32j. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE				32k. DATE		39. S/R VOUCHER NUMBER	
32l. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE				32m. DATE		40. PAID BY	
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT				42a. RECEIVED BY (Print)			
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER				42b. RECEIVED AT (Location)			
41c. DATE				42c. DATE REC'D (YY/MM/DD)			
				42d. TOTAL CONTAINERS			

**CONTINUATION OF THE SF 1449 - SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS**

1. Blocks 19 - 24 are completed as follows:

Item No.	Schedule of Supplies/Services	Quantity	Unit	Unit Price	Amount
0001	In-vacuum soft x-ray reflectivity system in accordance with Attachment No. 1, Specification 2.1.	1	EA	\$	\$
0002	Installation and Training as specified in Specification 2.2.	1	LO	\$	\$
	Total Amount For CLINs 0001 & 0002:			\$	\$
	OPTIONAL ITEM:				
0003	Chamber Pumping and Pressure Monitor in accordance with Attachment No. 1, Specification 2.3.	1	EA	\$	\$
	Total Amount For CLIN 0003:				

2. Block 25 is completed as shown on Page \*

\*TO BE FILLED IN AT CONTRACT AWARD

**ADDENDA TO FAR 52.212-4 CONTRACT TERMS AND CONDITIONS--COMMERCIAL ITEMS  
(APR 1998)**

**REQUIRED DELIVERY OR PERIOD OF PERFORMANCE**

The required delivery is as follows:

ITEM NO.	QUANTITY	WITHIN DAYS AFTER DATE OF CONTRACT AWARD
0001	1	180
0002	1	201
0003	1	180 Days after Option is Exercised

**OPTION(S)**

The Government may require delivery of the optional items by the contracting officer giving written notice any time prior to contract completion.

## AUTHORIZED GOVERNMENT REPRESENTATIVE

Dr. \*, Code \*, Telephone number \*, is hereby designated the Authorized Government Representative for inspection and acceptance purposes.

\*(To be filled in at time of award)

## YEAR 2000 COMPLIANT INFORMATION TECHNOLOGY

Information technology delivered under this contract shall be Year 2000 compliant as defined at FAR 39.002. "Information technology" is defined at FAR 2.101.

**FAR 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (JUN 1998)**

(a) The Contractor agrees to comply with the following FAR clauses, which are incorporated in this contract by reference, to implement provisions of law or executive orders applicable to acquisitions of commercial items:

- (1) 52.222-3, Convict Labor (E.O.11755); and
- (2) 52.233-3, Protest after Award (31 U.S.C 3553).

(b) The Contractor agrees to comply with the FAR clauses in this paragraph (b) which the contracting officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

*(Contracting Officer shall check as appropriate.)*

- ☒ (1) 52.203-6, Restrictions on Subcontractor Sales to the Government, with Alternate I (41 U.S.C.253g and 10 U.S.C.2402).
- ☐ (2) RESERVED
- ☒ (3) 52.219-8, Utilization of Small Business Concerns and Small Disadvantaged Business Concerns (15 U.S.C.637 (d)(2) and (3)).
- ☐ (4) 52.219-9, Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (15 U.S.C.637 (d)(4)).
- ☒ (5) 52.219-14, Limitation on Subcontracting (15 U.S.C.637(a)(14)).
- ☒ (6) 52.222-26, Equal Opportunity (E.O.11246).

- ☒ (7) 52.222-35, Affirmative Action for Special Disabled and Vietnam Era Veterans (38 U.S.C.4212).
- ☒ (8) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C.793).
- ☒ (9) 52.222-37, Employment Reports on Special Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C.4212).
- ☐ (10) 52.225-3, Buy American Act -- Supplies (41 U.S.C.10).
- ☐ (11) 52.225-9, Buy American Act -- Trade Agreements Act -- Balance of Payments Program (41 U.S.C.10, 19 U.S.C.2501-2582).
- ☐ (12) [Reserved]
- ☒ (13) 52.225-18, European Union Sanction for End Products (E.O.12849).
- ☐ (14) 52.225-19, European Union Sanction for Services (E.O.12849).
- ☐ (15) (i) 52.225-21, Buy American Act -- North American Free Trade Agreement Implementation Act -- Balance of Payments Program (41 U.S.C 10, Pub.L.103-187).
- ☐ (ii) Alternate I of 52.225-21.
- ☒ (16) 52.239-1, Privacy or Security Safeguards (5 U.S.C.552a).
- ☐ (17) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (46 U.S.C.1241).

(c) The Contractor agrees to comply with the FAR clauses in this paragraph (c), applicable to commercial services, which the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

*(Contracting Officer check as appropriate.)*

- ☐ (1) 52.222-41, Service Contract Act of 1965, As Amended (41 U.S.C.351, et seq.).
- ☐ (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (29 U.S.C.206 and 41 U.S.C.351, et seq.).
- ☐ (3) 52.222-43, Fair Labor Standards Act and Service Contract Act -- Price Adjustment (Multiple Year and Option Contracts) (29 U.S.C.206 and 41 U.S.C.351, et seq.).
- ☐ (4) 52.222-44, Fair Labor Standards Act and Service Contract Act - Price Adjustment (29 U.S.C.206 and 41 U.S.C.351, et seq.).
- ☐ (5) 52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to Predecessor Contractor Collective Bargaining Agreement (CBA) (41 U.S.C.351, et seq.).

(d) *Comptroller General Examination of Record.* The Contractor agrees to comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records -- Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) or (d) of this clause, the Contractor is not required to include any FAR clause, other than those listed below (and as may be required by an addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components --

- (1) 52.222-26, Equal Opportunity (E.O.11246);
- (2) 52.222-35, Affirmative Action for Special Disabled and Vietnam Era Veterans (38 U.S.C.2012(a));
- (3) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C.793); and
- (4) 52.247-64, Preference for Privately-Owned U.S.- Flagged Commercial Vessels (46 U.S.C.1241) (flow down not required for subcontracts awarded beginning May 1, 1996).

(End of clause)

**252.212-7001 -- CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS APPLICABLE TO DEFENSE ACQUISITIONS OF COMMERCIAL ITEMS. (MAR 1998)**

- (a) The Contractor agrees to comply with the (DFARS) clause 252.247-7023, Transportation of Supplies by Sea, which is included in this contract by reference to implement 10 U.S.C.2631.
- (b) The Contractor agrees to comply with any clause that is checked on the following list of DFARS clauses which, if checked, is included in this contract by reference to implement provisions of law or Executive Orders applicable to acquisitions of commercial items or components.
- |                                     |               |  |
|-------------------------------------|---------------|--|
| <input type="checkbox"/>            | 252.205-7000  | Provision of Information to Cooperative Agreement Holders (10 U.S.C.2416).   |
| <input type="checkbox"/>            | 252.206-7000  | Domestic Source Restriction (10 U.S.C.2304).   |
| <input type="checkbox"/>            | 252.219-7001  | Notice of Partial Small Business Set-Aside with Preferential Consideration for Small Disadvantaged Business Concerns                                       |
| <input type="checkbox"/>            | (Alternate I) | (Section 9004, Pub.L.101-165 (10 U.S.C.2301 (repealed) note)).   |
| <input type="checkbox"/>            | 252.219-7002  | Notice of Small Disadvantaged Business Set- Aside  |
| <input type="checkbox"/>            | (Alternate I) | (15 U.S.C.644).  |
| <input type="checkbox"/>            | 252.219-7003  | Small Business and Small Disadvantaged Business Subcontracting Plan (DOD Contracts) (15 U.S.C.637).  |
| <input type="checkbox"/>            | 252.219-7005  | Incentive for Subcontracting with Small Businesses, Small Disadvantaged Businesses, Historically Black Colleges and Universities and Minority Institutions |
| <input type="checkbox"/>            | (Alternate I) | (Section 9004, Pub.L.101-165 (10 U.S.C.2301 (repealed) note)).   |
| <input type="checkbox"/>            | 252.219-7006  | Notice of Evaluation Preference for Small Disadvantaged Business Concerns  |
| <input type="checkbox"/>            | (Alternate I) | (15 U.S.C.644).  |
| <input checked="" type="checkbox"/> | 252.225-7001  | Buy American Act and Balance of Payment Program (41 U.S.C.10 a-10d, E.O. 10582).   |
| <input type="checkbox"/>            | 252.225-7007  | Buy American Act -Trade Agreements - Balance of Payments Program   |
|                                     |               | <input type="checkbox"/> Alternate I) (41 U.S.C. 10a-10d, 19 U.S.C.2501-2518, and U.S.C. 3301 note).   |

- ☒ 252.225-7012 Preference for Certain Domestic Commodities.
- ☐ 252.225-7014 Preference for Domestic Specialty Metals (10 U.S.C.2241 note).
- ☐ 252.225-7015 Preference for Domestic Hand or Measuring Tools (10 U.S.C.2241 note).
- ☐ 252.225-7021 Trade Agreements (☐Alternate I) (19 U.S.C. 2501-2518 and 19 U.S.C. 3301 note).
- ☐ 252.225-7027 Restriction on Contingent Fees for Foreign Military Sales (22U.S.C.2779).
- ☐ 252.225-7028 Exclusionary Policies and Practices of Foreign Governments (22 U.S.C.2755).
- ☐ 252.225-7029 Restriction on Acquisition of Air Circuit Breakers (10 U.S.C.2534(a)(3)).
- ☒ 252.225-7036 Buy American Act - North American Free Trade Agreement Implementation Act.- Balance of Payment Program (☐Alternate I) (41 U.S.C. 10a-10d and 19 U.S.C. 3301 note).
- ☐ 252.227-7015 Technical Data -- Commercial Items (10 U.S.C.2320).
- ☐ 252.227-7037 Validation of Restrictive Markings on Technical Data (10 U.S.C.2321).
- ☐ 252.247-7024 Notification of Transportation of Supplies by Sea (10 U.S.C.2631).

- (c) In addition to the clauses listed in paragraph (e) of the Contract Terms and Conditions Required to Implement Statutes or Executive Orders-Commercial Items clause of this contract, the Contractor shall include the terms of the following clause, if applicable, in subcontracts for commercial items or commercial components, awarded at any tier under this contract:

252.225-7014 Preference for Domestic Specialty Metals, Alternate I (10 U.S.C.2241 note).

(End of Clause)

- ☒ 252.204-7004 Required Central Contractor Registration (MAR 1998)

### **DFARS**

252.232-7009 Payment By Electronic Funds Transfer (CCR) (JUN 1998)



**ATTACHMENTS:**

1. Statement of Work/Specifications – 4 Pages with Enclosures – 2 pages

**ADDENDUM TO FAR 52.212-1 INSTRUCTIONS TO OFFERORS - COMMERCIAL ITEMS**

- (a) The Government intends to award a contract resulting from this solicitation to that responsible offeror proposing the lowest price for the Supplies or Services that has been determined to comply with the requirements of the solicitation.
- (b) Options. The Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. The Government may determine that an offer is unacceptable if the option prices are significantly unbalanced. Evaluation of options shall not obligate the Government to exercise the option(s).
- (c) A written notice of award or acceptance of an offer, mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer, shall result in a binding contract without further action by either party. Before the offer's specified expiration time, the Government may accept an offer (or part of an offer), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award.

(End of Provision)

**FAR 52.212-3                      OFFEROR REPRESENTATIONS AND CERTIFICATIONS- COMMERCIAL  
ITEMS. (JAN 1997)(DEVIATION)**

(a) *Definitions.* As used in this provision:

“Emerging small business” means a small business concern whose size is no greater than 50 percent of the numerical size standard for the standard industrial classification code designated.

“Small business concern” means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and size standards in this solicitation.

“Small disadvantaged business concern” means a small business concern that--

(1) Is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business, having at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals, and

(2) Has its management and daily business controlled by one or more such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more of these entities, which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian organization and which meets the requirements of 13 CFR Part 124.

“Women-owned small business concern” means a small business concern--

(1) Which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

Women-owned business concern means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Taxpayer identification number (TIN) (26 U.S.C. 6050M). (1) *Taxpayer Identification Number (TIN).*

☐ TIN: \_\_\_\_\_.

☐ TIN has been applied for.

☐ TIN is not required because:

☐ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the U.S. and does not have an office or place of business or a fiscal paying agent in the U.S.;

☐ Offeror is an agency or instrumentality of a foreign government;

☐ Offeror is an agency or instrumentality of a Federal, state, or local government;

☐ Other. State basis. \_\_\_\_\_

(2) *Corporate Status.*

☐ Corporation providing medical and health care services, or engaged in the billing and collecting of payments for such services;

☐ Other corporate entity;

☐ Not a corporate entity:

☐ Sole proprietorship

☐ Partnership

☐ Hospital or extended care facility described in 26 CFR 501(c)(3) that is exempt from taxation under 26 CFR 501(a).

(3) *Common Parent.*

☐ Offeror is not owned or controlled by a common parent.

Name and TIN of common parent:

☐ Name

☐ TIN

(c) Offerors must complete the following representations when the resulting contract is to be performed inside the United States, its territories or possessions, Puerto Rico, the Trust Territory of the Pacific Islands, or the District of Columbia. Check all that apply.

(1) *Small business concern.* The offeror represents as part of its offer that it ☐ is, ☐ is not a small business concern.

(2) *Small disadvantaged business concern.* The offeror represents that it ☐ is, ☐ is not a small disadvantaged business concern.

(3) *Women-owned small business concern.* The offeror represents that it ☐ is, ☐ is not a women-owned small business concern.

NOTE: Complete paragraphs (c)(4) and (c)(5) only if this solicitation is expected to exceed the simplified acquisition threshold.

(4) *Women-owned business concern.* The offeror represents that it ☐ is ☐ is not, a women-owned business concern.

(5) *Tie bid priority for labor surplus area concerns.* If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to more than 50 percent of the contract price:

---

(6) *Small Business Size for the Small Business Competitiveness Demonstration Program and for the Targeted Industry Categories under the Small Business Competitiveness Demonstration Program. [Complete only if the offeror has represented itself to be a small business concern under the size standards for this solicitation.]*

(i) *(Complete only for solicitations indicated in an addendum as being set-aside for emerging small businesses in one of the four designated industry groups (DIGs).)* The offeror represents as part of its offer that it ☐ is, ☐ is not an emerging small business.

(ii) *(Complete only for solicitations indicated in an addendum as being for one of the targeted industry categories (TICs) or four designated industry groups (DIGs).)* Offeror represents as follows:

(A) Offerors number of employees for the past 12 months (check the Employees column if size standard stated in the solicitation is expressed in terms of number of employees); or

(B) Offerors average annual gross revenue for the last 3 fiscal years (check the Average Annual Gross Number of Revenues column if size standard stated in the solicitation is expressed in terms of annual receipts)

(Check one of the following):

NUMBER OF EMPLOYEES	AVERAGE ANNUAL GROSS REVENUES
<input type="checkbox"/> 50 or fewer	<input type="checkbox"/> \$1 million or less
<input type="checkbox"/> 51-100	<input type="checkbox"/> \$1,000,001 - \$2 million
<input type="checkbox"/> 101-250	<input type="checkbox"/> \$2,000,001 - \$3.5 million
<input type="checkbox"/> 251-500	<input type="checkbox"/> \$3,500,001 - \$5 million
<input type="checkbox"/> 501-750	<input type="checkbox"/> \$5,000,001 - \$10 million
<input type="checkbox"/> 751-1,000	<input type="checkbox"/> \$10,000,001 - \$17 million
<input type="checkbox"/> Over 1,000	<input type="checkbox"/> Over \$17 million

(d) *Certifications and representations required to implement provisions of Executive Order 11246--*

(1) *Previous Contracts and Compliance.* The offeror represents that--

(i) It ☐ has, ☐ has not, participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation, the clause originally contained in Section 310 of Executive Order 10925, or the clause contained in Section 201 of Executive Order 11114; and

(ii) It ☐ has, ☐ has not, filed all required compliance reports.

(2) *Affirmative Action Compliance.* The offeror represents that--

(i) It ☐ has developed and has on file, ☐ has not developed and does not have on file, at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR Subparts 60-1 and 60-2), or

(ii) It ☐ has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(e) *Certification Regarding Payments to Influence Federal Transactions (31 U.S.C. 1352).* (Applies only if the contract is expected to exceed \$100,000.) By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract.

(f) *Buy American Act--Trade Agreements--Balance of Payments Program Certificate.* (Applies only if FAR clause 52.225-9, Buy American Act--Trade Agreement--Balance of Payments Program, is included in this solicitation.)

(1) The offeror hereby certifies that each end product, except those listed in paragraph (f)(2) of this provision, is a domestic end product (as defined in the clause entitled Buy American Act--Trade Agreements Balance of Payments Program) and that components of unknown origin have been considered to have been mined, produced, or manufactured outside the United States, a designated country, a North American Free Trade Agreement (NAFTA) country, or a Caribbean Basin country, as defined in section 25.401 of the Federal Acquisition Regulation.

(2) Excluded End Products:

LINE ITEM NO.	COUNTRY OR ORIGIN

(3) Offers will be evaluated by giving certain preferences to domestic end products, designated country end products, NAFTA country end products, and Caribbean Basin country end products over other end products. In order to obtain these preferences in the evaluation of each excluded end product listed in paragraph (f)(2) of this provision, offerors must identify and certify below those excluded end products that are designated or NAFTA country end products, or Caribbean Basin country end products. Products that are not identified and certified below will not be deemed designated country end products, NAFTA country end products, or Caribbean Basin country end products. Offerors must certify by inserting the applicable line item numbers in the following:

(i) The offeror certifies that the following supplies qualify as designated or NAFTA country end products as those terms are defined in the clause entitled Buy American Act--Trade Agreements--Balance of Payments Program:

*(Insert line item numbers)*

(ii) The offeror certifies that the following supplies qualify as Caribbean Basin country end products as that term is defined in the clause entitled Buy American Act--Trade Agreements--Balance of Payments Program:

*(Insert line item numbers)*

(4) Offers will be evaluated in accordance with FAR Part 25.

(g)(1) *Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program.* (Applies only if FAR clause 52.225-21, Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program, is included in this solicitation.)

(i) Each end product being offered, except those listed in paragraph (g)(1)(ii) of this provision, is a domestic end product (as defined in the clause entitled Buy American Act--North American Free Trade Agreement Implementation Act-Balance of Payments Program." Components of unknown origin have been considered to have been mined, produced, or manufactured outside the United States.

(ii) Excluded End Products:

LINE ITEM NO.	COUNTRY OR ORIGIN
<i>(List as necessary )</i>	

(iii) Offers will be evaluated by giving certain preferences to domestic end products or NAFTA country end products over other end products. In order to obtain these preferences in the evaluation of each excluded end product listed in paragraph (g)(1)(ii) of this provision, offerors must identify below those excluded end products that are NAFTA country end products. Products that are not identified below will not be deemed NAFTA country end products.

The following supplies qualify as NAFTA country end products as that term is defined in the clause entitled Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program:

*(Insert line item numbers)*

(iv) Offers will be evaluated in accordance with FAR Part 25 of the Federal Acquisition Regulations. In addition, if the solicitation is for supplies for use outside of the United States, an evaluation factor of 50 percent will be applied to offers of end products that are not domestic or NAFTA country end products.

(2) *Alternate I.* If Alternate I to the clause at 52.225-21 is included in this solicitation, substitute the following paragraph (g)(1)(iii) for paragraph (g)(1)(iii) of this provision:

(g)(1)(iii) Offers will be evaluated by giving certain preferences to domestic end products or Canadian end products over other end products. In order to obtain these preferences in the evaluation of each excluded end product listed in paragraph (b) of this provision, offerors must identify below those excluded end products that are Canadian end products. Products that are not identified below will not be deemed Canadian end products.

The following supplies qualify as Canadian end products as that term is defined in the clause entitled Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program:

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*(Insert line item numbers)*

(h) *Certification Regarding Debarment, Suspension or Ineligibility for Award (Executive Order 12549)*. The offeror certifies, to the best of its knowledge and belief, that--

(1) The offeror and/or any of its principals ☐ are, ☐ are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency, and

(2) ☐ Have, ☐ have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, state or local government contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and ☐ are, ☐ are not presently indicted for, or otherwise criminally or civilly charged by a Government entity with, commission of any of these offenses.

(End of Provision)



**DFARS 252.212-7000      OFFEROR REPRESENTATIONS AND CERTIFICATIONS -  
COMMERCIAL ITEMS (NOV 1995)**

(a) *Definitions.*

As used in this clause --

- (1) "Foreign person" means any person other than a United States person as defined in Section 16(2) of the Export Administration Act of 1979 (50 U.S.C. App. Sec 2415).
- (2) "United States person" is defined in Section 16(2) of the Export Administration Act of 1979 and means any United States resident or national (other than an individual resident outside the United States and employed by other than a United States person), any domestic concern (including any permanent domestic establishment of any foreign concern), and any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern which is controlled in fact by such domestic concern, as determined under regulations of the President.

(b) *Certification.*

By submitting this offer, the Offeror, if a foreign person, company or entity, certifies that it--

- (1) Does not comply with the Secondary Arab Boycott of Israel; and
- (2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. Sec 2407(a) prohibits a United States person from taking.

(c) *Representation of Extent of Transportation by Sea.* (This representation does not apply to solicitations for the direct purchase of ocean transportation services).

- (1) The Offeror shall indicate by checking the appropriate blank in paragraph (c)(1) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term "supplies" is defined in the Transportation of Supplies by Sea clause of this solicitation.

(2) Representation.

The Offeror represents that it

\_\_\_\_\_ Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

\_\_\_\_\_ Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

- (3) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense Federal Acquisition Regulation Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

(End of provision)

DFARS 252.212-7000

OFFEROR REPRESENTATIONS AND CERTIFICATIONS -  
COMMERCIAL ITEMS (NOV 1995) (ADDENDUM)

DFARS 252.225-7000

BUY AMERICAN ACT -- BALANCE OF PAYMENTS PROGRAM  
CERTIFICATE.

- (a) Definitions.
- "Domestic end product," "qualifying country," "qualifying country end product," and "nonqualifying country end product" have the meanings given in the Buy American Act and Balance of Payments Program clause of this solicitation.
- (b) Evaluation.
- Offers will be evaluated by giving preference to domestic end products and qualifying country end products over nonqualifying country end products.
- (c) Certifications.
- (1) The Offeror certifies that --

(i) Each end product, except those listed in paragraphs (c)(2) or (3) of this clause, is a domestic end product; and

(ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.

(2) The Offeror certifies that the following end products are qualifying country end products:  
Qualifying Country End Products

Line Item Number	Country of Origin (If known)
(List only qualifying country end products.)	

- (3) The Offeror certifies that the following end products are nonqualifying country end products:  
Nonqualifying Country End Products

Line Item Number	Country of Origin (If known)
(End of provision)	

**N00173-98-R-HA04  
ATTACHMENT NO. 1  
SPECIFICATIONS**

**Magnetic Circular Dichroism Reflectometry Chamber**

**1. Introduction**

This specification is intended for the procurement of a ultra-high vacuum (UHV) soft x-ray reflectometry chamber to be placed at the Naval Research Laboratory (NRL) Magnetic Circular Dichroism (MCD) Facility located at beamline U4B of the National Synchrotron Light Source (NSLS) of Brookhaven National Laboratory, Upton NY 11973. (See Block 15 of SF 1449). The chamber must be designed to collect soft x-rays generated by the synchrotron source and scattered from a sample within the UHV chamber. The instrument to be supplied must consist of all the components necessary to implement the designs, functions, and program capabilities itemized in this specification. The attached drawings (Enclosure 1 with 2 pages) can be used to identify essential elements of the chamber specifications.

**2. Description**

Item #1 which is **In-vacuum soft x-ray reflectivity system**, is a required item and Item #3 which is the **Chamber pumping and pressure monitoring**, is an optional item. The contractor's offer shall show separate costs for each item. Chamber drawings must be supplied with the offer.

**2.1 In-vacuum Soft X-ray Reflectivity System**

The in-vacuum soft x-ray reflectivity system shall include (2.1.1) a reflectivity chamber and (2.1.2) the chamber stand. The salient features are described as follows:

**2.1.1 Reflectivity Chamber:**

The ultrahigh vacuum (UHV) reflectivity chamber must be capable of measuring specular (i.e.  $q - 2q$ ) and diffuse (i.e.  $q - w$ ) soft x-ray scattering from a sample which has been grown in the vacuum chamber at the sample position. See attached drawings for the general chamber layout (DRAWING #1) and the scattering geometry (DRAWING #2). The reflectivity chamber must be constructed of stainless steel and have a demonstrated capability to maintain a vacuum of  $1 \times 10^{-10}$  Torr. The reflectivity chamber must consist of two independent, computer controlled rotational stages which have a common rotational axis for sample mount rotation and detector arm rotation (see DRAWING #2).

2.1.1.1 Sample mount. The sample mount must allow for rotation of the sample from  $-10^\circ$  to  $+90^\circ$  (where  $0^\circ$  is along the photon propagation direction and  $+90^\circ$  is directed upwards) with a resolution of  $0.05^\circ$  and an accuracy of  $0.05^\circ$ . The sample mount must have a simple mechanism to allow for tilt correction ( $\pm 5^\circ$  orthogonal to the scattering plane) of the sample to ensure that the sample normal is always contained in the scattering plane (defined by the fixed incident photon direction and the detector position). The sample holder must have the capability to heat the sample to  $1000^\circ\text{C}$ . The sample must be electrically isolated from the chamber with a shielded electrical contact feedthru for sample current measurements.

2.1.1.2 Sample electromagnet. The sample mount must contain an electromagnet capable of delivering  $\pm 200$  Oe fields at the sample position. The applied magnetic field must be in the plane of the sample and in the scattering plane at all rotational positions (i.e. the magnet must rotate with the sample) and must be contained completely behind the sample so as not to interfere with the incident or scattered X-ray beam.

2.1.1.3 Detector arm. The detector arm must allow for rotation of the NRL supplied detector from  $-10^\circ$  to  $+90^\circ$  (where  $0^\circ$  is along the photon propagation direction and  $+90^\circ$  is directed upwards) with a resolution of  $0.05^\circ$  and an accuracy of  $0.05^\circ$ . The detector arm must be made to minimize detector movement due to chamber vibrations. The distance from the NRL supplied detector to the sample position must be a minimum of 12".

2.1.1.4 UHV chamber. The chamber must allow for easy access to the sample position from either the sample side or detector arm side via 8" conflat flanges (see DRAWING #1). The UHV chamber must have two 2-3/4" conflat flanges aligned with the sample position and with each other and perpendicular to the rotation axis (see DRAWING #1). The UHV chamber must have three additional flanges of varying size which are directed at the sample position for use as evaporation ports with NRL supplied evaporators (see DRAWING #1).

2.1.1.5 Sample Retraction. The chamber must allow the incident X-rays to pass completely thru the chamber, without breaking vacuum. This can be accomplished by retracting or lowering the sample holder and magnet assembly allowing for passage of the X-ray beam.

2.1.1.6 Computer control. Both the sample rotation and detector position must be controlled by an NRL supplied PC computer.

## 2.1.2 Chamber stand

The chamber stand must be constructed of stainless steel and must support the entire reflectivity system, including the optional pumping.

2.1.2.1 The stand must separately allow for vertical and horizontal adjustment (1" travel) of the front and back of the chamber for alignment with the fixed incident photon beam. The stand must support the chamber so that the x-ray ports are 43" from the floor.

2.1.2.2 The front of the stand must not extend beyond the front x-ray entrance flange.

## 2.2. Installation and Training

2.2.1 There must be complete installation and operation of the system to these specifications within 21 days after delivery of Item/s 2.1 and 2.3 (if exercised). There must be on site training after completion of the installation of the equipment described in this procurement. The training will be extensive, covering all mechanical and software features of the detector so we will be able to correctly use and maintain the chamber.

## **OPTIONAL ITEM**

### **2.3. Chamber Pumping and Pressure Monitor:**

This item must include all necessary hardware, electronics, and cables to achieve and maintain a vacuum of  $1 \times 10^{-10}$  Torr in the reflectivity chamber described in item #1. This includes the following:

2.3.1 The chamber pumping must be accomplished using a turbo pump and an ion pump. The turbo pump must have a minimum pumping speed of 150 l/sec and be backed with an oil free pump and be capable of reaching  $1 \times 10^{-7}$  Torr within a few hours. The turbo pump must be isolated with a pneumatic gate valve and have an up to air valve. The ion pump must have a minimum rated pumping speed of 200 l/sec and must be located below the chamber. The ion pump must have a bakeable, manual 8" gate valve for isolation.

2.3.2 Pressure monitoring capabilities to continuously measure the vacuum within the chamber from atmosphere to  $1 \times 10^{-11}$  Torr within the chamber. The low pressure monitoring must be performed by both an ion gauge and, because of interference with the soft x-ray detectors used in this chamber, an additional cold cathode gauge. Both low pressure gauges must have the capability of pressure monitoring for interlock purposes with a settable pressure level.

2.3.3 Bake-out capabilities, using heat tapes, variacs, and heat resistant blankets, must be supplied to heat the entire chamber to a minimum of 150°C.

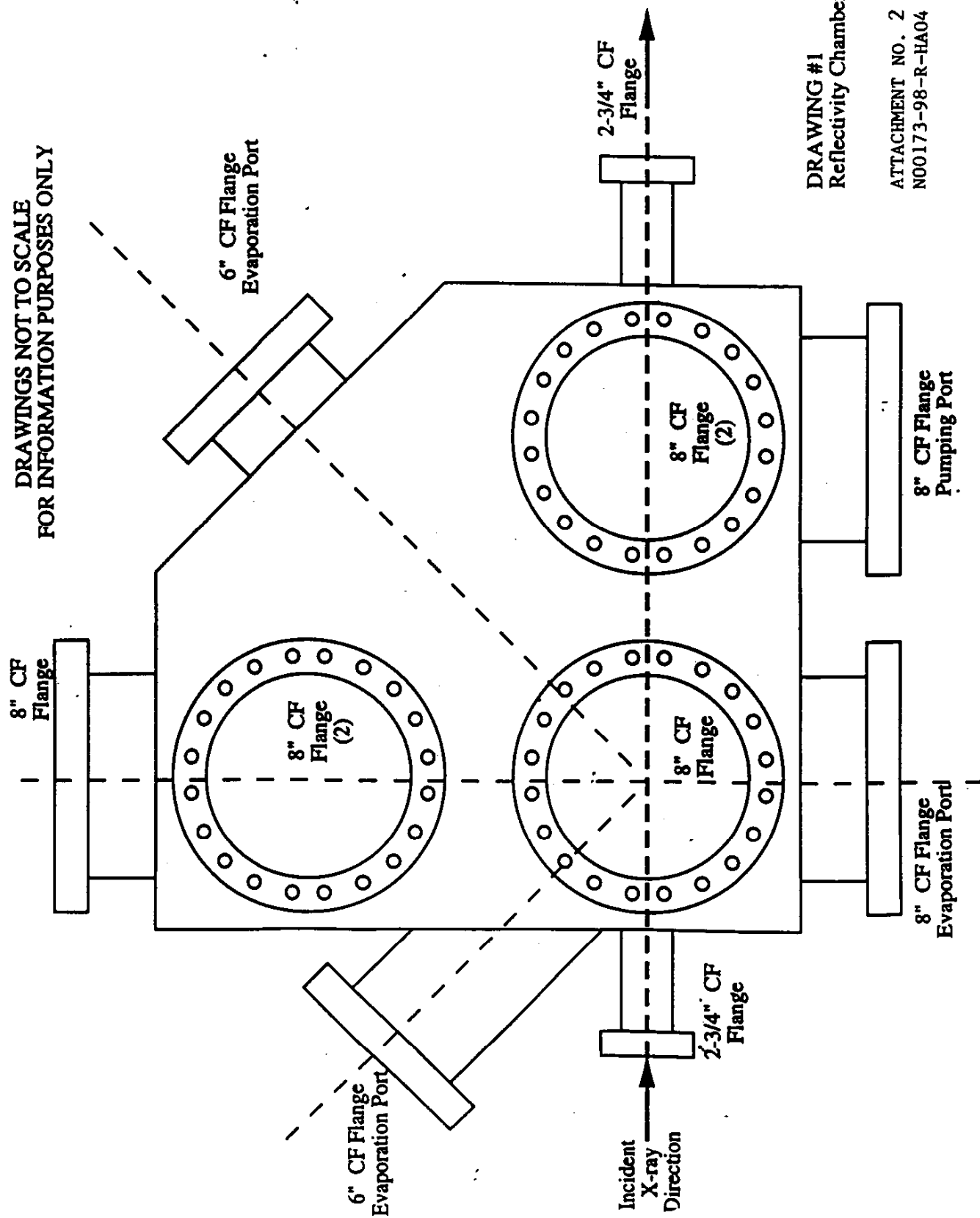
### **3. VENDOR LIABILITIES**

The vendor shall be required to certify that the offered equipment and software will perform precisely as described in this specification. All capabilities must be demonstrated during the initial installation and will be reviewed prior to final acceptance of the instrument. The buyer reserves the right to refuse any variance from these specifications.

### **4. WARRANTY AND SUPPORT**

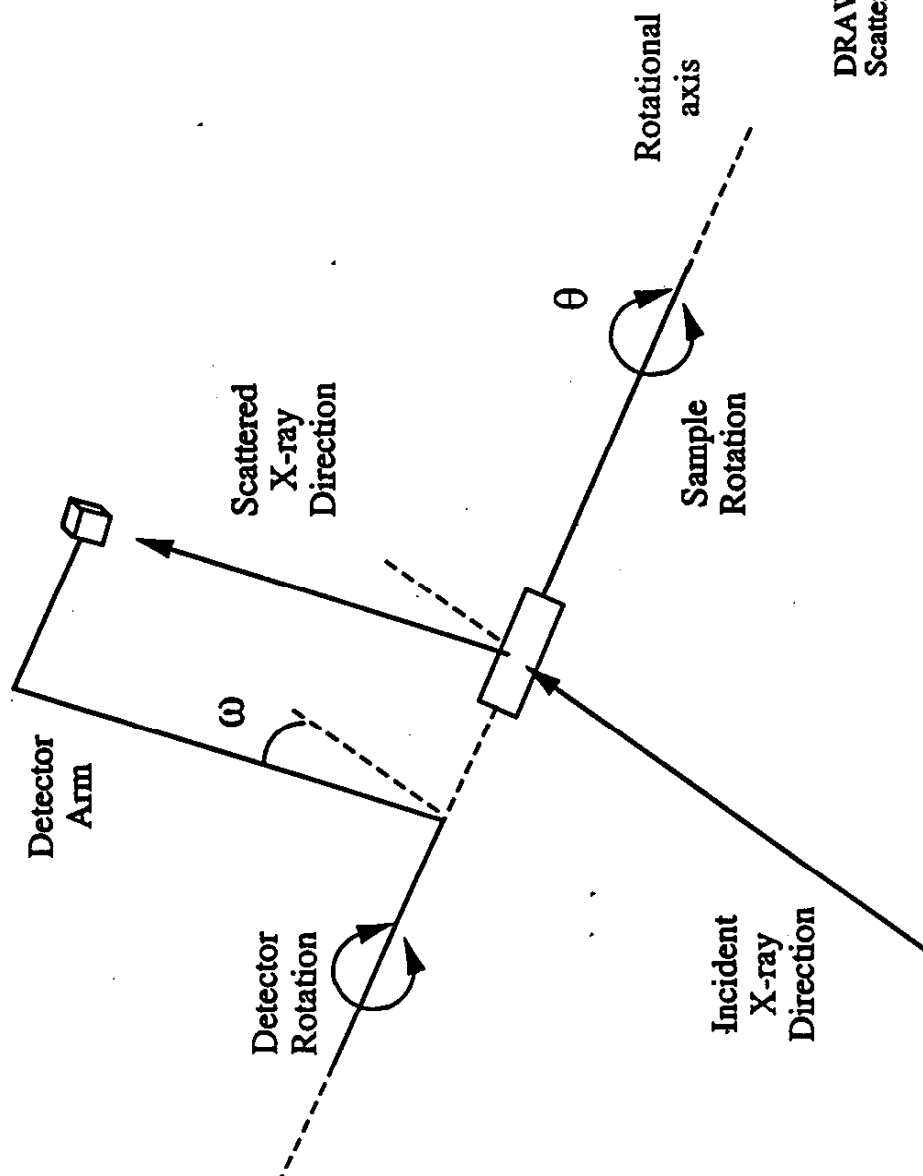
The contractor must offer the government at least the same warranty terms for parts and labor against defects in materials and workmanship as offered in its standard commercial contracts. The warranty period begins at the conclusion of the installation of the equipment.

DRAWINGS NOT TO SCALE  
FOR INFORMATION PURPOSES ONLY



DRAWING #1  
Reflectivity Chamber

ATTACHMENT NO. 2  
N00173-98-R-HA04



**DRAWING #2**  
**Scattering Geometry**

**ATTACHMENT NO. 2**  
**N00173-98-R-HA04**